Sana'a University
Faculty of Engineering
Mechanical Engineering Department
Mechanical Engineering Program

56. Course Specification of Renewable Energy Systems

I. Course Identification and General Information:

1.	Course Title:	Renewable Energy Systems.				
2.	Course Code & Number:	ME404				
3.	Credit Hours:	C.H				TOTAL CR. HRS.
		Th.	Seminar/Tu.	Pr	Tr.	
		2	2	-	-	3
4.	Study level/ semester at which this course is offered:	Fifth Year-First Semester.				
5.	Pre –requisite (if any):	Fluid Mechanics – II (ME242), and Heat and Mass Transfer (ME353)..				
6.	Co –requisite (if any):	None.				
7.	Program (s) in which the course is offered:	Mechanical Engineering Program.				
8.	Language of teaching the course:	English Language.				
9.	Location of teaching the course:	Mechanical Engineering Department.				
10.	Prepared By:	Assoc. Prof. Dr. Abdul-Malik Momin.				
11.	Date of Approval:					

II. Course Description:

With environmental issues and climate change on the rise, we must begin to radically re-think our energy systems. Currently, less than 5% of worldwide energy supplies are from renewable energies, even though technological advancements allow for at least 50-60%. But is this truly possible and if so, why hasn't more renewable energies been implemented? This course examines the technical, economic, political, and social aspects of renewable energy and its link with societies. Different renewable energy technologies (wind, solar, hydro, etc.) are explored. This introductory course of Renewable Energy Systems will provide understanding of the technology, applications, economics and policies relevant to each type of energy source.

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Asst. Prof. Dr. Adel Ahmed Al-Shakiri	Assoc. Prof. Dr. Mohammad Algorafi	Prof. Dr. Mohammed AL-Bukhaiti	Assoc. Prof. Dr. Huda Al-Emad	Prof. Dr. Al-Qassim Mohammed Abbas

	III. Alignments of the Course Intended learning outcomes (CILOs)	Referenced PILOs
a1	Characterize the knowledge of basic sciences subjects related to Renewable Energy Systems.	A1
a1	Describe the main working principles of different types of Renewable Energy Systems.	A2
b1	Explore different ideas related to the applications of systems reaching to innovative solutions.	B2
b2	Analyze different processes for the optimal enhancement during the applications of Renewable Energy Systems.	B3
c1	Implement different techniques for obtaining best efficiencies.	C1
c2	Perform different analytical work using special software related to the Renewable Energy Systems.	C2
d1	Assess to life -long learning regarding the new innovations for the best applications.	D3
d2	Cooperate effectively within the team in presenting the technical reports.	D5

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(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1- Characterize the knowledge of basic sciences subjects related to Renewable Energy Systems.	• Active Lectures. • Tutorials. • Interactive Class Discussions.	• Written Exam. • Homework. • Presentations.
a1- Describe the main working principles of different types of Renewable Energy Systems.		

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1- Explore different ideas related to the applications of systems reaching to innovative solutions.	• Active Lectures. • Seminars. • Projects.	• Examination. • Homework. • Project Reports.
b2- Analyze different processes for the optimal enhancement during the applications of Renewable Energy Systems.		

© Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
c1- Implement different techniques for obtaining best efficiencies.	• Computer Laboratory Based Session. • Active Lectures. • Projects. • Problem Based Learning.	• Examination. • Homework. • Presentations. • Individual and Group Project Reports.
c2- Perform different analytical work using special software related to the Renewable Energy Systems.		

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(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:			
Course Intended Learning Outcomes		Teaching strategies	Assessment Strategies
d1- for	Assess to life -long learning regarding the new innovations the best applications.	• Team Work. • Directed Self –Study. • Seminars.	• Individual and Group Projects Reports. • Presentations
d2-	Cooperate effectively within the team in presenting the technical reports.		

IV. Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Learning Outcomes	Sub -Topics List	Number of Weeks	Contact Hours
1.	Air Pollution and Sources of Pollutants.	a1, a2, b1, b2, c1,c2, d1, d2.	• Ambient Air Quality and Emissions Standards. • Various Pollutants and their Harmful Effects. • Sources of Pollutants. • Classifications of Pollutants. • Pollutants Generated from Vehicle Fuel Combustion.	1	2
2.	Introduction to the Renewable Energy and Solar Energy Utilization.	a1, a2.	• Renewable Energy Resources. • Applications of the Renewable Energy. • Solar Geometry and Collector Angles. • Solar Radiations. • Instruments for Measuring Solar Radiations. • The Most Common Weather Tools.	1	2

3.	Flat Plate Collectors and Solar Dryers.	a1, a2. b1, b2.	• Description of Flat Plate Collectors. • Performance Analysis. • Solar Dryers.	2	4
4.	Concentrating Collectors.	a1,a2, b1, b2, c1, c2.	• Cylindrical Parabolic Collector. • Parabolic Dish Collector. • Central Receiver Collector. • Applications of the Parabolic Collector with Steam Power Plant.	1	2
5.	Photovoltaic Systems.	a1, a2, b1, b2, c1,c2, d1, d2.	• What are Photovoltaic Cells? • Commercial Solar Cells. • Typical PV System.	2	4
6.	Mid-Term Exam.	a1, a2, b1, b2,c1, c2.	• The First 5 Chapters.	1	2
7.	Wind Power Systems.	a1, a2, b1, b2, c1,c2, d1, d2.	• Wind Mill Design. • Horizontal Axis Wind Turbine (HAWT). • Vertical Axis Wind Turbine (VAWT). • Wind Farms. • Wind Project Development Process.	2	4
8.	Hydro-Power Systems.	a1, a2, b1, b2, c1,c2, d1, d2.	• Introduction to Hydro-Power Plant. • Classifications of Hydro-Power Plants. • Cost of Hydro-Electric Power Plant.	2	4
9.	Geothermal Energy Systems.	a1, a2, b1, b2, c1,c2, d1, d2.	• Geothermal Energy-An Overview. • High Enthalpy Regions. • World Geothermal Resources.	1	2

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			• Technologies for Geothermal Exploitation.		
10	Economic Analysis.	a1, a2, b1, b2, c1,c2, d1, d2.	• Initial and Annual Costs. • Present Worth Calculation. • Repayment of Loan in Equal Annual Installment. • Payback Period.	1	2
11.	Hybrid System Technology.	a1, a2, b1, b2, c1,c2, d1, d2.	• Introduction to Hybrid Power Generation. • Description of the Hybrid System. • Hybrid Control Monitoring Systems.	1	2
12.	Final Exam.	a1, a2, b1, b2,c1, c2.	All the Chapters.	1	2
Number of Weeks /and Units Per Semester				**16**	**32**

B– Tutorial Aspect:

Order	Units/Topics List	Learning Outcomes	Sub -Topics List	Number of Weeks	Contact Hours
1.	Air Pollution and Sources of Pollutants.	a1, a2, b1, b2, c1,c2, d1, d2.	• Ambient Air Quality and Emissions Standards. • Various Pollutants and their Harmful Effects. • Sources of Pollutants. • Classifications of Pollutants. • Pollutants Generated from Vehicle Fuel Combustion.	1	2
2.	Introduction to the Renewable Energy and Solar Energy Utilization.	a1, a2.	• Renewable Energy Resources. • Applications of the Renewable Energy. • Solar Geometry and Collector Angles. • Solar Radiations.	1	2

			• Instruments for Measuring Solar Radiations. • The Most Common Weather Tools.		
3.	Flat Plate Collectors and Solar Dryers.	a1, a2. b1, b2.	• Description of Flat Plate Collectors. • Performance Analysis. • Solar Dryers.	2	4
4.	Concentrating Collectors.	a1,a2, b1, b2, c1, c2.	• Cylindrical Parabolic Collector. • Parabolic Dish Collector. • Central Receiver Collector. • Applications of the Parabolic Collector with Steam Power Plant.	1	2
5.	Photovoltaic Systems.	a1, a2, b1, b2, c1,c2, d1, d2.	• What are Photovoltaic Cells? • Commercial Solar Cells. • Typical PV System.	2	4
6.	Wind Power Systems.	a1, a2, b1, b2, c1,c2, d1, d2.	• Wind Mill Design. • Horizontal Axis Wind Turbine (HAWT). • Vertical Axis Wind Turbine (VAWT). • Wind Farms. • Wind Project Development Process.	2	4
7.	Hydro-Power Systems.	a1, a2, b1, b2, c1,c2, d1, d2.	• Introduction to Hydro-Power Plant. • Classifications of Hydro-Power Plants. • Cost of Hydro-Electric Power Plant.	2	4

8.	Geothermal Energy Systems.	a1, a2, b1, b2, c1,c2, d1, d2.	• Geothermal Energy-An Overview. • High Enthalpy Regions. • World Geothermal Resources. • Technologies for Geothermal Exploitation.	1	2
9.	Economic Analysis.	a1, a2, b1, b2, c1,c2, d1, d2.	• Initial and Annual Costs. • Present Worth Calculation. • Repayment of Loan in Equal Annual Installment. • Payback Period.	1	2
10.	Hybrid System Technology.	a1, a2, b1, b2, c1,c2, d1, d2.	• Introduction to Hybrid Power Generation. • Description of the Hybrid System. • Hybrid Control Monitoring Systems.	1	2
Number of Weeks /and Units Per Semester				**14**	**28**

V. Teaching Strategies of the Course:

- Active Lectures.
- Tutorials.
- Seminars.
- Projects.
- Computer Laboratory Based Session.
- Problem Based Learning.
- Team Work.
- Directed Self –Study.

VI. Assignments:

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1.	Assignment No. 1	a1, a2, b1, b2,c1, c2, d1, d2.	2nd	1.25
2.	Assignment No. 2	a1, a2, b1, b2,c1, c2, d1, d2.	3rd	1.25

3.	Assignment No. 3	a1, a2, b1, b2,c1, c2, d1, d2.	4th	1.25
4.	Assignment No. 4	a1, a2, b1, b2,c1, c2, d1, d2.	5th	1.25
5.	Assignment No. 5	a1, a2, b1, b2,c1, c2, d1, d2.	6th	1.25
6.	Assignment No. 6	a1, a2, b1, b2,c1, c2, d1, d2.	7th	1.25
7.	Assignment No. 7	a1, a2, b1, b2,c1, c2, d1, d2.	8th	1.25
8.	Assignment No. 8	a1, a2, b1, b2,c1, c2, d1, d2.	9th	1.25
9.	Assignment No. 9	a1, a2, b1, b2,c1, c2, d1, d2.	10th	1.25
10.	Assignment No. 10	a1, a2, b1, b2,c1, c2, d1, d2.	11th	1.25
Total				**15**

VII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1.	Assignment for Each Chapter.	Weekly	15	10 %	a1, a2, b1, b2,c1, c2, d1, d2.
2.	Mid-Term Exam.	8th	25	16.7 %	a1, a2, b1, b2,c1, c2.
3.	Course File.	15th	20	13.3%	a1, a2, b1, b2,c1, c2, d1, d2.
4.	Final Exam.	16th	90	60 %	a1, a2, b1, b2,c1, c2.
Total			**150**	**100 %**	

VIII. Learning Resources:

- *Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).*

1- Required Textbook(s) (maximum two).

1. S.P. Sukhumi, 1998, Solar Energy-Principles of Thermal Collection and Sto Second Edition, Tata McGraw Hill.
2. Dr. P.C. Sharma, 2000, Power Plant Engineering, Sixth Edition, S.K. Katarina and
3. P.K. Nag, 2008, Power Plant Engineering, Third Edition, Tata McGraw Hill.

2- Essential References.

1. John A. Duffy and William A. Beckman, 1980, Solar Engineering of Th Processes 7th Second Edition, John Wiley & Sons Inc.

3- Electronic Materials and Web Sites *etc*.

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	1. www.environmentalsciencedegree.com. 2. www.irena.org. 3. www.renewable-technology.com

I. Course Policies:

1	**Class Attendance:** - The student should be attending not less than 75% of total contact hours of the subject, otherwise he will not able to take exam and be considerd as an exam failure. If the student is absent due to illness, he/she should bring an approved statement from university Clinic.
2	**Tardy:** - For lateness in attending the class, the student will be initially notified. If he repeates late in attending class he will be considered absent.
3	**Exam Attendance/Punctuality:** - The student should attend the exam on time. He is permitted to attend the exam half one hour from exam beginning, after that he/she will not be permitted to take exam and he/she is considered absent in the exam.
4	**Assignments & Projects:** - In general one assignment is given after each chapter of a course. The student should submit the assignment on time, mostly one week after giving the assignment
5	**Cheating**: - For cheating in exam, the student is considered as failure. In case the cheating is repeated three times during study the student will be disengaged from the Faculty
6	**Plagiarism**: Plagiarism is the attending of the student the exam of a course instead of other student. If the examination committee proved a plagiarism of a student, he will be disengaged from the Faculty. The final disengagement of the student from the Faculty should be confirmed from the Student Affair Council of the university.
7	**Other policies:** - The mobile phone is not allowable to be used during class lecture. It must be switched off, otherwise the student will be ordered to leave the lecture room. - The mobile phone is not allowed to be taken during the examination time. - Lecture notes and assignments may be given directly to students using soft or hard copy.

Reviewed By	**Vice Dean for Academic Affairs and Post Graduate Studies: Asst. Prof. Dr. Tarek A. Barakat**

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	President of Quality Assurance Unit: Assoc. Prof. Dr. Mohammed Algorafi **Name of Reviewer from the Department: Asst. Prof. Dr. Eng. Hamoud A. Al-Nahari**
	Deputy Rector for Academic Affairs Asst. Prof. Dr. Ibrahim AlMutaa **Assoc. Prof. Dr. Ahmed Mujahed** **Asst. Prof. Dr. Munasar Alsubri**

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56. Template for Course Plan of Renewable Energy Systems

I. Information about Faculty Member Responsible for the Course:							
Name of Faculty Member	Dr. Abdul-Malik Momin	**Office Hours**					
Location& Telephone No.	Mechanical Engineering Department- 777943334	**SAT**	**SUN**	**MON**	**TUE**	**WED**	**THU**
E-mail	dramalikmomin@yahoo.com						

II. Course Identification and General Information:						
1.	Course Title:	Renewable Energy Systems.				
2.	Course Number & Code:	ME404				
3.	Credit Hours:	C.H				Total Cr. Hrs.
		Th.	Seminar/Tu.	Pr	Tr.	
		2	2	-	-	3
4.	Study level/year at which this course is offered:	Fifth Year-First Semester.				
5.	Pre –requisite (if any):	Fluid Mechanics – II (ME242), and Heat and Mass Transfer (ME353).				
6.	Co –requisite (if any):	None.				
7.	Program (s) in which the course is offered	Mechanical Engineering Program.				
8.	Language of teaching the course:	English Language.				
9.	System of Study:	Semesters.				
10.	Mode of delivery:	Lectures and Tutorials.				
11.	Location of teaching the course:	Mechanical Engineering Department.				

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III. Course Description:

With environmental issues and climate change on the rise, we must begin to radically re-think our energy systems. Currently, less than 5% of worldwide energy supplies are from renewable energies, even though technological advancements allow for at least 50-60%. But is this truly possible and if so, why hasn't more renewable energies been implemented? This course examines the technical, economic, political, and social aspects of renewable energy and its link with societies. Different renewable energy technologies (wind, solar, hydro, etc.) are explored. This introductory course of Renewable Energy Systems will provide understanding of the technology, applications, economics and policies relevant to each type of energy source.

IV. Course Intended learning outcomes (CILOs) of the course

1.	Characterize the knowledge of basic sciences subjects related to Renewable Energy Systems.
2.	Describe the main working principles of different types of Renewable Energy Systems.
3.	Explore different ideas related to the applications of systems reaching to innovative solutions.
4.	Analyze different processes for the optimal enhancement during the applications of Renewable Energy Systems.
5.	Implement different techniques for obtaining best efficiencies.
6.	Perform different analytical work using special software related to the Renewable Energy Systems.
7.	Assess to life -long learning regarding the new innovations for the best applications.
8.	Cooperate effectively within the team in presenting the technical reports.

V. Course Content:

- Distribution of Semester Weekly Plan of Course Topics/Items and Activities.

A – Theoretical Aspect:

Order	Units/Topics List	Sub -Topics List	Week Due	Contact Hours
1.	Air Pollution and Sources of Pollutants.	• Ambient Air Quality and Emissions Standards. • Various Pollutants and their Harmful Effects. • Sources of Pollutants. • Classifications of Pollutants. • Pollutants Generated from Vehicle Fuel Combustion.	1st	2
2.	Introduction to the Renewable Energy and Solar Energy Utilization.	• Renewable Energy Resources. • Applications of the Renewable Energy. • Solar Geometry and Collector Angles. • Solar Radiations. • Instruments for Measuring Solar Radiations. • The Most Common Weather Tools.	2nd	2
3.	Flat Plate Collectors and Solar Dryers.	• Description of Flat Plate Collectors. • Performance Analysis. • Solar Dryers.	3rd, 4th	4
4.	Concentrating Collectors.	• Cylindrical Parabolic Collector. • Parabolic Dish Collector. • Central Receiver Collector. • Applications of the Parabolic Collector with Steam Power Plant.	5 th	2
5.	Photovoltaic Systems.	• What are Photovoltaic Cells? • Commercial Solar Cells. • Typical PV System.	6 th, 7 th	4

6.	Mid-Term Exam.	• The First 5 Chapters.	8 th	2
7.	Wind Power Systems.	• Wind Mill Design. • Horizontal Axis Wind Turbine (HAWT). • Vertical Axis Wind Turbine (VAWT). • Wind Farms. • Wind Project Development Process.	9 th, 10 th	4
8.	Hydro-Power Systems.	• Introduction to Hydro-Power Plant. • Classifications of Hydro-Power Plants. • Cost of Hydro-Electric Power Plant.	11th, 12th	4
9.	Geothermal Energy Systems.	• Geothermal Energy-An Overview. • High Enthalpy Regions. • World Geothermal Resources. • Technologies for Geothermal Exploitation.	13th	2
10.	Economic Analysis.	• Initial and Annual Costs. • Present Worth Calculation. • Repayment of Loan in Equal Annual Installment. • Payback Period.	14th	2
11.	Hybrid System Technology.	• Introduction to Hybrid Power Generation. • Description of the Hybrid System. • Hybrid Control Monitoring Systems.	15 th	2
12.	Final Exam.	All the Chapters.	16 th	2
Number of Weeks /and Units Per Semester			**16**	**32**

B – Tutorial Aspect:

Order	Units/Topics List	Sub -Topics List	Week Due	Contact Hours
1.	Air Pollution and Sources of Pollutants.	• Ambient Air Quality and Emissions Standards. • Various Pollutants and their Harmful Effects.	1st	2

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		• Sources of Pollutants. • Classifications of Pollutants. • Pollutants Generated from Vehicle Fuel Combustion.		
2.	Introduction to the Renewable Energy and Solar Energy Utilization.	• Renewable Energy Resources. • Applications of the Renewable Energy. • Solar Geometry and Collector Angles. • Solar Radiations. • Instruments for Measuring Solar Radiations. • The Most Common Weather Tools.	2nd	2
3.	Flat Plate Collectors and Solar Dryers.	• Description of Flat Plate Collectors. • Performance Analysis. • Solar Dryers.	3rd, 4th	4
4.	Concentrating Collectors.	• Cylindrical Parabolic Collector. • Parabolic Dish Collector. • Central Receiver Collector. • Applications of the Parabolic Collector with Steam Power Plant.	5 th	2
5.	Photovoltaic Systems.	• What are Photovoltaic Cells? • Commercial Solar Cells. • Typical PV System.	6 th, 7 th	4
6.	Wind Power Systems.	• Wind Mill Design. • Horizontal Axis Wind Turbine (HAWT). • Vertical Axis Wind Turbine (VAWT). • Wind Farms. • Wind Project Development Process.	8 th, 9 th	4
7.	Hydro-Power Systems.	• Introduction to Hydro-Power Plant. • Classifications of Hydro-Power Plants.	10 th, 11 th	4

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		• Cost of Hydro-Electric Power Plant.		
8.	Geothermal Energy Systems.	• Geothermal Energy-An Overview. • High Enthalpy Regions. • World Geothermal Resources. • Technologies for Geothermal Exploitation.	12 th	2
9.	Economic Analysis.	• Initial and Annual Costs. • Present Worth Calculation. • Repayment of Loan in Equal Annual Installment. • Payback Period.	13 th	2
10.	Hybrid System Technology.	• Introduction to Hybrid Power Generation. • Description of the Hybrid System. • Hybrid Control Monitoring Systems.	14 th	2
Number of Weeks /and Units Per Semester			**14**	**28**

VI. Teaching strategies of the course:

- Active Lectures.
- Tutorials.
- Seminars.
- Projects.
- Computer Laboratory Based Session.
- Problem Based Learning.
- Team Work.
- Directed Self –Study.

VII. Assignments:

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1.	Assignment No. 1	a1, a2, b1, b2,c1, c2, d1, d2.	2nd	1.25
2.	Assignment No. 2	a1, a2, b1, b2,c1, c2, d1, d2.	3rd	1.25
3.	Assignment No. 3	a1, a2, b1, b2,c1, c2, d1, d2.	4th	1.25

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4.	Assignment No. 4	a1, a2, b1, b2,c1, c2, d1, d2.	5th	1.25
5.	Assignment No. 5	a1, a2, b1, b2,c1, c2, d1, d2.	6th	1.25
6.	Assignment No. 6	a1, a2, b1, b2,c1, c2, d1, d2.	7th	1.25
7.	Assignment No. 7	a1, a2, b1, b2,c1, c2, d1, d2.	8th	1.25
8.	Assignment No. 8	a1, a2, b1, b2,c1, c2, d1, d2.	9th	1.25
9.	Assignment No. 9	a1, a2, b1, b2,c1, c2, d1, d2.	10th	1.25
10.	Assignment No. 10	a1, a2, b1, b2,c1, c2, d1, d2.	11th	1.25
Total:				**15**

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1.	Assignment for Each Chapter.	Weekly	15	10 %
2.	Mid-Term Exam.	8 th	25	16.7 %
3.	Course File.	15 th	20	13.3 %
4.	Final Exam.	16 th	90	60 %
Total:			**150**	**100%**

IX. Learning Resources:

- *Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).*

1- Required Textbook(s) (maximum two).

1. S.P. Sukhumi, 1998, Solar Energy-Principles of Thermal Collection and Sto Second Edition, Tata McGraw Hill.
2. Dr. P.C. Sharma, 2000, Power Plant Engineering, Sixth Edition, S.K. Katarin Sons.
3. P.K. Nag, 2008, Power Plant Engineering, Third Edition, Tata McGraw Hill.

2- Essential References.

1. John A. Duffy and William A. Beckman, 1980, Solar Engineering of Th Processes 7th Second Edition, John Wiley & Sons Inc.

3- Electronic Materials and Web Sites *etc*.

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	1. www.environmentalsciencedegree.com. 2. www.irena.org. 3. www.renewable-technology.com

II. Course Policies:

1	**Class Attendance:** - The student should be attending not less than 75% of total contact hours of the subject, otherwise he will not able to take exam and be considerd as an exam failure. If the student is absent due to illness, he/she should bring an approved statement from university Clinic.
2	**Tardy:** - For lateness in attending the class, the student will be initially notified. If he repeates late in attending class he will be considered absent.
3	**Exam Attendance/Punctuality:** - The student should attend the exam on time. He is permitted to attend the exam half one hour from exam beginning, after that he/she will not be permitted to take exam and he/she is considered absent in the exam.
4	**Assignments & Projects:** - In general one assignment is given after each chapter of a course. The student should submit the assignment on time, mostly one week after giving the assignment
5	**Cheating**: - For cheating in exam, the student is considered as failure. In case the cheating is repeated three times during study the student will be disengaged from the Faculty
6	**Plagiarism**: Plagiarism is the attending of the student the exam of a course instead of other student. If the examination committee proved a plagiarism of a student, he will be disengaged from the Faculty. The final disengagement of the student from the Faculty should be confirmed from the Student Affair Council of the university.
7	**Other policies:** - The mobile phone is not allowable to be used during class lecture. It must be switched off, otherwise the student will be ordered to leave the lecture room. - The mobile phone is not allowed to be taken during the examination time. - Lecture notes and assignments may be given directly to students using soft or hard copy.

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